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NOT TO BE PUBLISHED IN THE OFFICIAL REPORTS

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

SECOND APPELLATE DISTRICT

DIVISION SEVEN

BETTY CUNNINGHAM et al., Plaintiffs and Appellants, v. BUFFALO PUMPS, INC. et al., Defendants and Respondents.	B198465 (Los Angeles County Super. Ct. No. BC 318049)

APPEAL from a Judgment of the Superior Court of Los Angeles County. Warren L. Ettinger, Judge. Reversed.

Waters & Kraus, Paul C. Cook and Michael B. Gurien for Plaintiff and Appellant Betty Cunningham.

Gordon & Rees, Michael Pietrykowski, James G. Scadden, and Don Willenburg for Defendant and Respondent Leslie Controls, Inc.

Jackson & Wallace, Gabriel A. Jackson, Todd M. Thacker, and Christine A. Huntoon for Defendant and Respondent Buffalo Pumps, Inc.

Plaintiffs appeal judgment in favor of defendants Buffalo Pumps, Inc. and Leslie Controls, Inc. Plaintiffs' decedent Richard Cunningham (Cunningham) worked aboard Navy ships for many years as a machinist's mate, and contended he was exposed to asbestos dust from defendants' products, causing him to contract mesothelioma. Plaintiffs contend the trial court erred in (1) instructing on the design defect theory of risk/benefit, rather than the consumer expectations test, and (2) using a special verdict form that improperly combined the theories of risk/benefit design defect and failure to warn. Defendants contend that plaintiffs failed to establish causation, they are not liable for the defective components of their products, and the action is barred by the sophisticated user defense of *Johnson v. American Standard, Inc.* (2008) 43 Cal.4th 56. We reverse, concluding that the trial court erred in failing to instruct on the consumer expectations test, and that the special verdict form was erroneous.

FACTUAL BACKGROUND AND PROCEDURAL HISTORY

Cunningham was diagnosed with mesothelioma in August 2003.[1] He joined the Navy in 1964 at age 17, and worked as a machinist's mate. He served in the Navy a total period of 20 years, and retired in 1989. For most of that time, he maintained mechanical pumps, pump governors, and valves in the boiler rooms of naval vessels powered by steam propulsion.

On a daily basis, as part of maintenance, Cunningham would remove worn-out flanges and gaskets made of asbestos insulation from pumps and valves. He knew the gaskets were asbestos because they all had markings stating they contained asbestos. At times, the gaskets could be very hard, and in order to remove them, Cunningham would use chipping tools, scrapers, wire brushes, and power grinders. On average, he removed

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[1] The original plaintiff, Richard Cunningham, is deceased. Cunningham died prior to the commencement of trial, and his deposition was played for the jury. He is succeeded as plaintiff in this action by his wife Betty Cunningham, individually and as personal representative of the Estate of Richard Cunningham; James Cunningham; Tracy Corbett; Justin Cunningham; and Amanda Cunningham.

gaskets four times a week. Some of the gaskets might come out in one piece, while others were difficult to remove and had to be ground out. On many occasions he would use a wire brush to speed up the process; this method stirred up a lot of dust.

Cunningham testified in his deposition that he specifically repaired Buffalo pumps at Great Lakes Naval Training Facility, and worked on many pumps that he described as "Buffalo-style pumps."[2] Cunningham also performed work on Leslie Controls valves on board Navy ships. He did not change the valves themselves, but would remove, repair and replace the gasketing; the replacement was based on specifications taken from the manufacturer's technical manual.

For most of his time in the Navy, he did not wear a mask when working. Beginning in 1977, the Navy began to instruct on the safety issues of asbestos. Later, while he was on board the U.S.S. Trenton, they had weekly safety meetings. They started to wet down the insulation before removing it, and used air masks. When he was on board the U.S.S. Biddle while it was in the Philadelphia Naval Shipyard during its upgrade in 1987 and 1988, they had an air lock set up.[3]

At trial, Dr. Edwin Holstein, a doctor of occupational medicine, testified that asbestos is a naturally occurring mineral. Several different kinds, including chrysotile asbestos, are used in industry. Asbestos fibers are too small to see with the naked eye, and are easily inhaled. Illnesses from asbestos occurs decades after exposure; it is a cumulative disease that results from multiple exposures. In his opinion, there is no safe level of

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[2] Navy Captain Francis Burger attempted to testify to his opinion that, based upon his reading of Cunningham's deposition, Cunningham worked on Buffalo pumps during his career in the Navy. The trial court sustained objections to this testimony on foundational grounds. Captain Burger was ultimately able to testify that Cunningham "worked with or around" Buffalo pumps while in the Navy.

[3] A precise chronology of Cunningham's Navy career was not developed at trial; however, the evidence established that during his career, he served aboard, among others, the U.S.S. Hancock, U.S.S. Oriskany , the U.S.S. Mitscher, and the U.S.S. Trenton.

asbestos exposure. Over 90 percent of cases of mesothelioma result from asbestos exposure, and there is no cure for mesothelioma.

Chrysotile asbestos accounts for 95 percent of the asbestos used in manufactured products, and is known to cause mesothelioma. The body has more difficulty breaking down chrysotile asbestos fibers. Dr. Holstein admitted that some respected authorities do not believe chrysotile asbestos causes mesothelioma. He also acknowledged some authorities believe amphibole asbestos is more pathogenic than chrystotile asbestos.

In Dr. Holstein's opinion, Cunningham died from malignant mesothelioma caused by exposure to asbestos. He testified that there is nothing that would alert a person to the danger of asbestos; it has no odor, and does not affect the skin.

According to Dr. Holstein, beginning in the 1930s, the medical community began to recognize the dangers of asbestos exposure. In 1949, the head of United States Public Health Service published information that asbestos exposure could cause lung cancer. In 1955 Sir Richard Doll of Great Britain published a study establishing beyond doubt that asbestos causes lung cancer. Dr. Doll wrote that lung cancer was a specific industrial hazard of asbestos workers who had been employed for more than 20 years, and noted that England had adopted regulations reducing asbestos dust in the workplace. Dr. Wagner of South Africa published a study in 1960 showing asbestos exposure led to 33 cases of mesothelioma. In 1964, Dr. Selikoff linked mesothelioma with asbestos exposure. In 1972, the Occupational Safety and Health Administration adopted regulations regarding asbestos, and specified the maximum permissible exposure level.

Dr. Holstein testified that a machinist's mate in the Navy would be exposed to asbestos through the pumps, which are insulated with asbestos. The pumps are taken apart for repair, which would create asbestos exposure. In his opinion, such exposure on a regular basis would give rise to significant and substantial exposure to asbestos, which contributed to Cunningham's mesothelioma.

Navy Captain Francis Burger testified that while Cunningham was on Navy ships, he would have maintained pumps by replacing packing and gaskets. When Cunningham was on the U.S.S. Hancock, he would have worked with lube oil service pumps, main

condensate pumps, main circulating pumps, main feed booster pumps, the bilge pumps, and fire and flushing pumps. Cunningham would have had technical manuals for such products available. In general, the manufacturers would provide their equipment to the shipyard, which would assemble, install, and insulate the equipment on the vessel. Leslie Controls specified that asbestos gaskets be used with its valves. Naval engineers would ensure that the equipment complied with military specifications.

William Hughson, M.D. testified on behalf of Buffalo Pumps that chrystotile asbestos rarely causes mesothelioma, and does so only after decades of exposure; in his opinion, Cunningham's mesothelioma was not caused by exposure to chrysotile asbestos. In his opinion, Cunningham's mesothelioma was caused by amosite asbestos found in thermal insulation products, not pump and valve packing. Dr. Hughson referenced previous testimony that had established other potential sources of asbestos exposure to Cunningham while in the Navy included products other than defendants' products, such as asbestos containing thermal insulation products, block insulation, flooring materials, tiles, and composition materials.

Dr. Hughson pointed out that the tools known to prevent asbestos related diseases were known in the 1930s. According to the Merewether and Price study from the 1930s, it was known that that sawing, grinding, or abrading asbestos containing products could be a source of exposure. Following the Selikoff studies in 1964-1965, exposure to asbestos could no longer be justified as safe.

Charles Blake, an industrial hygienist, testified on behalf of Leslie Controls that any insulation on a Navy ship of the class on which Cunningham served would have been made of amosite/chrysotile asbestos or pure amosite asbestos. Cunningham would have worked near boilers containing this type of insulation. Cunningham's exposure to asbestos from packing and gasket work would be much lower than even today's safety standards, and such exposure would not cause mesothelioma.

Rear Admiral Roger Horne (retired), a ship design and engineer with the Navy, testified on behalf of Leslie Controls that pump manufacturers did not provide insulation

with the pump, even when new. He testified that Cunningham likely changed over 1000 gaskets while aboard the U.S.S. Hancock.

After specifically finding that Cunningham was exposed to asbestos in defendants' products, the jury returned a verdict in favor of defendants.

DISCUSSION

I. THE TRIAL COURT ERRED IN FAILING TO INSTRUCT USING THE "CONSUMER EXPECTATIONS" TEST.

Plaintiffs contend the trial court erred in failing to instruct the jury using the "consumer expectations" test to establish strict liability. They also contend the test is not made inapplicable because the Navy was the actual purchaser of the products. Defendants argue that the test is limited to those situations where the jury can determine whether the product is defective without expert assistance, and in any event, any error is harmless because Cunningham failed to establish that his mesothelioma was caused by their products.

A. Factual Background.

Plaintiffs requested a jury instruction based on the "consumer expectations" test under which the product could be found to have a defect design if it did not perform as safely as an ordinary consumer would have expected at the time of use. Plaintiffs argued the test was applicable in asbestos cases. (*Sparks v. Owens-Illinois, Inc.* (1995) 32 Cal.App.4th 461, 472 (*Sparks*); *Jones v. John Crane, Inc.* (2005) 132 Cal.App.4th 990, 1002 (*Jones*).)

Defendants argued that the "risk benefit" test governed because the jury was required to evaluate complex technical issues and expert testimony, and requested the court to give CACI No. 1204. Defendants argued that neither mesothelioma, its cause, nor the proper design, maintenance, and construction of complicated machinery was within everyday experience or common knowledge. (See *Morson v. Superior Court* (2001) 90 Cal.App.4th 775, 780.) Further, they contended, the consumer expectation test was only applicable to "res ipsa loquitur" type accidents, not to asbestos exposure cases taking place

over many years. (See *Pruitt v. General Motors Corp.* (1999) 72 Cal.App.4th 1480, 1484.) Finally, they argued that the existing asbestos cases differed from plaintiffs' situation because they did not involve complex marine equipment.

The court declined to give the consumer expectations instruction because it did not find the test applicable.

B. The Trial Court Erred in Refusing to Give the Consumer Expectations Test Instruction.

A manufacturer may be held strictly liable for placing a defective product on the market if the plaintiff's injury results from a reasonably foreseeable use of the product. (*Soule v. General Motors Corp.* (1994) 8 Cal.4th 548, 560 (*Soule*); *Sparks, supra,* 32 Cal.App.4th at p. 472.) Products liability may be premised upon a theory of design defect, manufacturing defect, or failure to warn. (*Anderson v. Owens-Corning Fiberglas Corp.* (1991) 53 Cal.3d 987, 995 (*Anderson*).)

Defective design may be established under two theories: (1) the consumer expectations test, which asks whether the product performed as safely as an ordinary consumer would expect when used in an intended and reasonably foreseeable manner; or (2) the risk/benefit test, which asks whether the benefits of the challenged design outweigh the risk of danger inherent in the design. (*Anderson, supra,* 53 Cal.3d at p. 995; *Barker v. Lull Engineering Co.* (1978) 20 Cal.3d 413, 432.) Both theories may be presented to the jury. (*McCabe v. American Honda Motor Co., Inc.* (2002) 100 Cal.App.4th 1111, 1126 (*McCabe*).) However, whether the jury should be instructed on either test depends upon the particular facts of the case. (*Id.* at p. 1122.)

The rationale of the consumer expectations test is that "[t]he purposes, behaviors, and dangers of certain products are commonly understood by those who ordinarily use them." (*Soule, supra,* 8 Cal.4th at p. 566.) Therefore, in some cases, ordinary knowledge of the product's characteristics may permit an inference that the product did not perform as safely as it should. "*If* the facts permit such a conclusion, and *if* the failure resulted from the product's design, a finding of defect is warranted without any further proof," and the manufacturer may not defend by presenting expert evidence of a risk/benefit analysis.

(*Ibid.*) The consumer expectations test is reserved for cases in which the everyday experience of the products' users permits a conclusion that the product's design violated minimum safety assumptions, and is "defective *regardless of expert opinion about the merits of the design.*" Therefore, if the minimum safety of a product is within the common knowledge of lay jurors, expert witnesses may not be used to demonstrate what an ordinarily consumer should expect. (*Id.* at p. 567.) Nonetheless, the "inherent complexity of the product itself is not controlling on the issue of whether the consumer expectations test applies; a complex product may perform so unsafely that the defect is apparent to the common reason, understanding and experience of its ordinary consumers." (*McCabe, supra,* at p. 1123, fn. 5.)[4]

On the other hand, "the jury may not be left free to find a violation of ordinary consumer expectations whenever it chooses. Unless the facts actually permit an inference that the product's performance did not meet minimum safety expectations of its ordinary

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[4] We have held that in a jury case, the trial court must initially determine as a question of foundation, within the context of the facts and circumstances of the particular case, whether the product is one about which the ordinary consumer can form reasonable minimum safety expectations. (*McCabe, supra,* 100 Cal.App.4th at p. 1126, fn. 7.) As we explained, "If court concludes it is not, no consumer expectation instruction should be given. If, on the other hand, the trial court finds there is sufficient evidence to support a finding that the ordinary consumer can form reasonable minimum safety expectations, the court should instruct the jury, consistent with Evidence Code section 403, subdivision (c), to determine whether the consumer expectation test applies to the product at issue in the circumstances of the case and to disregard the evidence about consumer expectations unless the jury finds that the test is applicable. If it finds the test applicable, the jury then must decide whether the product failed to perform as safely as an ordinary consumer would expect when the product is used in an intended or reasonably foreseeable manner." We further clarified that, "In leaving the applicability of the consumer expectation test for the trier of fact, we envision an inquiry similar to that employed in res ipsa loquitur cases. . . . In res ipsa cases, there must be some evidence that would support a finding of the existence of the three conditions necessary for the application of the res ipsa presumption before the instruction is given." (*Ibid.*, citing *Pruitt v. General Motors Corp., supra,* 72 Cal.App.4th at p. 1484 [consumer expectation test is reserved for "res ipsa-like cases that do not require the application of a general standard to determine defective design].)

users, the jury must engage in the balancing of risks and benefits required by the second prong of *Barker*." (*Soule, supra,* at p. 568.) The consumer expectations test is inappropriate "when the ultimate issue of design defect calls for a careful assessment of feasibility, practicality, risk, and benefit," since "in many instances it is simply impossible to eliminate the balancing or weighing of competing considerations in determining whether a product is defectively designed or not. . . ." (*Soule, supra,* pp. 562-563.)

If the consumer expectations test is not used, under the risk/benefit test, the plaintiff may establish the product is defective by showing that its design proximately caused his injury; defendant must then establish that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design. (*Barker v. Lull Engineering Co.* (1978) 20 Cal.3d 413, 432 (*Barker*).) In such a case, the jury must evaluate the product's design by considering the gravity of the danger posed by the design, the likelihood such danger would occur, the feasibility of a safer alternative design, the financial cost of an improved design, and the adverse consequences to the consumer resulting from an alternative design. (*Id.* at p. 431.) "In such cases, the jury *must* consider the manufacturer's evidence of competing design considerations . . . and the issue of design defect cannot fairly be resolved by standardless reference to the 'expectations' of an 'ordinary consumer.'" (*Soule, supra,* 8 Cal.4th at p. 567.) Once the plaintiff has made a prima facie showing that his or her injury was caused by the product's defective design, the burden shifts to the defendant to establish that, in light of the relevant factors, the product is not defective.[5] (*Ibid.*)

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[5] In *Soule*, the Supreme Court found that a claim that General Motors' defective design of the wheel assembly and front floorboard enhanced the plaintiff's injuries in a collision required a risk/benefit analysis. The court concluded the plaintiff's theory involved technical and mechanical detail beyond the consumer's understanding or experience because "ordinary experience and understanding [would not] inform such a consumer how safely an automobile's design should perform under the esoteric circumstances of the collision at issue. . . . Indeed, both parties assumed that quite complicated design considerations were at issue. . . ." (*Soule, supra,* 8 Cal.4th at p. 570.)

Several cases have applied the consumer expectations test to asbestos-containing products. (*Sparks, supra,* 32 Cal.App.4th at p. 476; *Jones, supra,* 132 Cal.App.4th at pp. 1002-1003.) In *Sparks,* the defendant manufactured a product known as "Kaylo," which consisted of 13 to 20 percent asbestos, primarily chrysotile. Kaylo was sold in pipe-covering and block forms, and was used for industrial high-temperature thermal insulation. (*Sparks, supra,* at p. 465.) The plaintiff encountered Kaylo insulation while in the Navy, during a six-month period in which he removed and inspected asbestos insulation on pipes and valves. The insulation was removed by cutting and sawing, which produced sawdust consisting of the insulation material. Regular cleanup procedures involved the use of compressed air and foxtail brooms, both of which generated large amounts of dust. (*Id.* at p. 466.)

Sparks held that the consumer expectations test applied to plaintiff's claims for products liability based upon design defect because there were no "complicated design considerations," "obscure components," or "esoteric circumstances" surrounding plaintiff's use of Kaylo, which was a common type of asbestos block insulation. *Sparks* noted that Kaylo was a simple, stationary product in ordinary use that had to be cut and shaped to perform its insulating function; this cutting created large of amounts of asbestos-laden dust during the normal installation, inspection, removal and replacement processes. "The design failure was in Kaylo's emission of highly toxic, respirable fibers in the normal course of its intended use and maintenance as a high-temperature thermal insulation. It is a reasonable inference from the evidence that this emission of respirable fibers, which were capable of causing a fatal lung disease after a long latency period, was a product failure beyond the 'legitimate, commonly accepted minimum safety assumptions of its ordinary consumers.'" (*Sparks, supra,* 32 Cal.App.4th at pp. 474-475, citing *Soule, supra,* 8 Cal.4th at pp. 569-570.)

Sparks further held that the use of expert testimony was not precluded in cases proceeding on the consumer expectations test because such testimony was useful to the jury in determining that ordinary users of Kaylo during the 1950s and 1960s did not expect to develop a fatal disease from simply breathing Kaylo dust and therefore that the product

did not meet the minimum safety assumptions of ordinary consumers. (*Sparks, supra,* 32 Cal.App.4th at pp. 476-477.)

In *Jones,* the plaintiff was regularly exposed to valve and pump packing materials made of asbestos while in the Navy. (*Jones, supra,* 132 Cal.App.4th at p. 996.) On appeal, the defendant manufacturer argued that the trial court erred in instructing with the consumer expectations test because issues of alleged product defect and its causal relationship to the plaintiff's illness could only be resolved by the testimony of experts because "nothing in the 'everyday experience of users of valve and pump packing would permit them to form any assumptions concerning the health risks attendant to the use of such a product.'" (*Id.* at p. 1001.) *Jones* rejected the defendant's argument that *Sparks* was distinguishable because although the insulation in *Sparks* was of relatively simple design, its product required a host of experts to explain the complex nature and behavior of its products, the amount of asbestos released during ordinary handling, and disputed testimony concerning the degree to which asbestos fibers were embedded in the product. (*Id.* at p. 1002.) "The fact that expert testimony was required to establish legal causation for plaintiffs' injuries does not mean that an ordinary user of the product would be unable to form assumptions about the safety of the products. The consumer expectations test does not require inquiry into how exposure to a particular level of asbestos may lead to the development of cancer." (*Id.* at p. 1003.)

A judgment may not be reversed on appeal, even for error involving misdirection of the jury, unless "after an examination of the entire cause, including the evidence," it appears the error caused a "miscarriage of justice." (Cal. Const., art. VI, § 13.) When the error is one of state law only, it generally does not warrant reversal unless there is a reasonable probability that in the absence of the error, a result more favorable to the appealing party would have been reached. (*Soule, supra,* 8 Cal.4th at pp. 574, 580.) Such an assessment requires evaluation of several factors, including the evidence, counsel's arguments, the effect of other instructions, and any indication by the jury itself that it was misled. (*Id.* at p. 580.)

Here, the trial court's omission of the consumer expectations instruction was prejudicial. First, the facts supported the giving of the instruction. As in *Jones* and *Sparks*, the plaintiff here was exposed to asbestos pump and value packing material that produced a tremendous amount of dust when it was removed in the manner intended. The composition of asbestos-containing pump and value insulation and its function were not complex or esoteric concepts beyond the comprehension of lay consumers. There is nothing technical or esoteric about the production of dust containing toxic fibers, and an ordinary consumer would not be expect that what appeared to be an innocuous and odorless dust could cause mesothelioma.

Second, contrary to defendants' contentions,[6] nothing in the record supported giving the risk/benefit instruction. The dangers of asbestos were known in the 1930s, and the data in the succeeding years confirmed the early researchers' findings. Yet, defendants produced no evidence that, in their design processes, they weighed this knowledge against the benefits or detriments of using other packing materials, or that alternative designs were considered.[7] The fact that the defendants' products were made to Navy specifications does not, without more, establish that they engaged in any risk/benefit analysis. On the contrary, the expert testimony at trial presented technical information on the levels of exposure needed to trigger the disease and solely addressed causation; such testimony added nothing to the explication of the underlying hazards of defendants' product and whether these were considered in its design.[8]

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[6] Buffalo Pumps references testimony concerning the Navy's specifications as evidence that the manufacturers engaged in a risk/benefit analysis of the use of asbestos.

[7] Leslie Controls' representative testified that they did not test for the dangers of asbestos during the period 1944 to 1976, and no policies or programs were instituted with regard to asbestos.

[8] Plaintiffs also contend that the consumer expectation test was not rendered inapplicable because the Navy, rather than Cunningham, was the consumer of the product. We agree. Nothing in the test suggests that a manufacturer may be absolved from liability because the employer, rather than the employee, is the actual purchaser of

Therefore, the trial court erred in two respects: Not only was plaintiff entitled to an instruction on the consumer expectation test, the evidence presented at trial did not support the trial court's giving of the risk benefit instruction. The cumulative impact of these errors was prejudicial to plaintiffs' case because it is reasonably likely the result would have been different had the trial court properly instructed the jury based on the correct rule of law and evidence adduced at trial.

B. Asbestos Products Are Not Too Technical for the Consumer Expectations Test.

Defendants nonetheless contend that the pumps and values at issue, and their component gaskets and packing, are too technical and sophisticated to be evaluated under the consumer expectations test. Under *Soule,* use of the consumer expectations test is the exception, not the norm; here, "complicated design considerations" are at issue and "expert testimony [is] necessary to illuminate these matters," making "injection of ordinary consumer expectations into the design defect equation . . . improper." (*Soule, supra,* 8 Cal.4th at p. 570.) Further, they argue that the fact a consumer does not expect to be injured when using a product does not, without more, prove a design defect. (*Morson v. Superior Court, supra,* 90 Cal.App.4th at p. 779 [consumer expectations test did not apply to latex glove design defect claim based upon assertion the gloves contained toxic substances]; *Pruitt v.* 72 Cal.App.4th at p. 1483 [consumer expectations test did not apply to claim of defectively designed airbag because minimum safety standards for airbags are not within the common knowledge of lay jurors].) They argue that an ordinary consumer would have no idea, without expert testimony, how safe a pump could be made and still perform its function on a naval vessel because the high-temperature shipboard applications

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the product. (See, e.g., *Sparks, supra*, 32 Cal.App.4th at pp. 475-476 [discussing the expectations of "ordinary users" of Kaylo].)

could not be performed without asbestos gaskets and packing; further, their equipment was complex and involved obscure components beyond the understanding of the lay consumer.[9]

Defendants attempt to distinguish *Sparks* on the grounds the asbestos insulation at issue there consisted of large blocks of toxic amphibole asbestos fibers, and did not involve minute quantities of highly engineered parts that required extensive deconstruction of the product to expose the asbestos: "Kaylo was a common type of asbestos-containing block insulation. It was a simple, stationary product in its ordinary uses. Because it was made of friable material that had to be cut and shaped to perform its insulating function on irregularly shaped objects, it generated large amounts of asbestos-laden dust during normal installation, inspection, removal, and replacement processes." (*Sparks, supra,* 32 Cal.App.4th at pp. 474-475.) Here, defendants' distinction is meritless. The asbestos in their products performed the same under stress as did the asbestos in *Sparks*: it fractured, releasing large quantities of inhalable dust into the air.

Finally, defendants attempt to distinguish *Jones*, the case most precisely on point here, and argue it is either distinguishable or was wrongly decided and we should not follow it. They contend that *Jones* does not stand for the proposition that expert testimony may be used in a consumer expectations case; rather, *Jones* only permitted expert testimony on causation. Further, they argue, *Jones's* analysis is flawed because it is based upon the reasoning that "those working with defendant's products did not expect to develop lung cancer from simply breathing the dust created in the ordinary use of the product," a finding upon which the jury could be permitted to infer the product did not meet the minimum safety assumption of its ordinary consumers. (*Jones, supra,* 132 Cal.App.4th at p. 1003.) This analysis misstates the test, defendants claim, because whether a plaintiff would expect to be injured does not correctly state the test; rather, because the answer to that question will almost always be "no," the exception would

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[9] As evidence of the complexity of the products, defendants point the fact that, for example, Dr. Holstein, who testified he had studied pump manuals, could not identify an actual Navy pump at trial.

swallow the rule and the consumer expectations test would apply to almost all cases. In addition, they argue, "ordinary user of the product," does not equate with "everyday experience of the ordinary consumer," and here, because the replacing of gaskets and packing was not within the ordinary experience of lay jurors, the consumer expectations test could not be applied.

Defendants' attempts to distinguish *Jones, Sparks,* and *Arena v. Owens Corning Fiberglas Corp.* (1998) 63 Cal.App.4th 1178 (*Arena*)[10] are unavailing because their attempts to portray their products as too "technical" or "complicated" for application of the consumer expectations test fails. Plaintiffs contend the products were defective in that a replaceable component of the pumps and valves -- asbestos packing and gaskets -- was defective because the parts were made of a hazardous substance.[11] Therefore, although defendants may be correct that their pumps and valves are technical and complex when considered as a whole, the replaceable asbestos packing and gaskets at issue are not highly technical. Cunningham's interface with the gaskets and packing was straightforward, as established by the fact that none of the testimony at trial discussed anything more than where the asbestos was placed in defendants' products, how it was removed, and how it was replaced. The jury did not need to know anything about the function or other components of the pumps' and valves' design in order to evaluate whether the products' design was defective based upon their inclusion of a defective part.

On the other hand, an ordinary consumer, whether he or she be a person buying an everyday product at the supermarket or a Navy machinist's mate, would expect that such

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[10] In *Arena,* the court held that raw asbestos is a product that may have a design defect when it fails to meet the commonly accepted minimum safety assumptions of its ordinary consumers. (*Arena, supra,* 63 Cal.App.4th at p. 1190.)

[11] As discussed in more detail in Part II., *infra,* defendants contend that they cannot be liable for the asbestos parts of their products because such parts were made by another manufacturer. However, the manufacturer of a completed product cannot escape liability by tracing the defect to a component part supplied by another. (*Vandermark v. Ford Motor Company* (1964) 61 Cal.2d 256, 261.)

packing and gaskets would not be made of a hazardous material whose dangerous properties were unknowable to the user. On that basis, we cannot see any principled basis to distinguish *Sparks* on the grounds the insulation at issue there was a different type of asbestos and produced more copious quantities of dust because the insulation came in larger pieces. The testimony at trial established that minute quantities of all kinds of asbestos can cause disease.

C. The Evidence Supports a Finding of Causation.

Buffalo contends that even had the consumer expectations instruction been given, plaintiffs failed to establish its products caused Cunningham's mesothelioma. We disagree.

Rutherford v. Owens-Illinois, Inc. (1997) 16 Cal.4th 953 (*Rutherford*) sets forth the controlling two-part test for determining whether exposure to asbestos from a particular product was a legal cause of a plaintiff's injury in an asbestos-induced personal injury case. "[T]he plaintiff must first establish some threshold *exposure* to the defendant's defective asbestos-containing products, *and* must further establish in reasonable medical probability that a particular exposure or series of exposures was a 'legal cause' of his injury, i.e., a *substantial factor* in bringing about the injury." (*Id.* at p. 982, fn. omitted.) "[A] particular asbestos-containing product is deemed to be a substantial factor in bringing about the injury if its contribution to the plaintiff or decedent's *risk* or *probability* of developing cancer was substantial." (*Id.* at p. 977.)

The substantial factor standard is broad, requiring only that the contribution of the individual cause be more than negligible or theoretical. (*Rutherford, supra,* 16 Cal.4th at p. 978.) Factors to be considered include "the length, frequency, proximity and intensity of exposure, the peculiar properties of the individual product, any other potential causes to which the disease could be attributed (e.g., other asbestos products, cigarette smoking), and perhaps other factors affecting the assessment of comparative risk." (*Id.* at p. 975.)

Here, the jury was instructed on causation; although the special verdict did not request it to find causation and the jury made no specific finding on the issue, it did find Cunningham was exposed to asbestos in defendants' products. The record discloses there

was substantial evidence to support a finding of a threshold exposure to asbestos from materials contained within defendant's pumps and valves. The evidence established that Cunningham worked on Buffalo Pumps at the Great Lakes training center; that in general, he worked on many Buffalo-style pumps; Buffalo's representative admitted that Buffalo Pumps contained asbestos; and asbestos containing gaskets were common in the Navy in the 1960s and 1970s. Further, Leslie Controls admitted its valves contained asbestos, and that there was testimony Leslie Control valves were used aboard Navy ships. Cunningham testified to his work on Leslie Control valves.

In addition, the testimony established that mesothelioma only results from asbestos exposure; that asbestos gaskets release respirable fibers; and chrysotile asbestos causes mesothelioma. With regard to the amount of exposure, expert testimony established intermittent exposure can cause mesothelioma; there is no "safe" level of exposure; and if the dust is visible, then the amount of asbestos present is sufficient to cause disease. Despite the fact that defendants adduced evidencing refuting the contention that chrysotile asbestos causes mesothelioma, there was sufficient evidence from which the jury could conclude chrysotile asbestos could cause mesothelioma.

We conclude that the trial court erred in omitting the requested instruction to the jury on the consumer expectations test because the instruction applied to the asbestos products in this case, and such products were not too technical for a lay jury to understand and evaluate whether their design was defective. We find that the error was prejudicial not only because the trial court failed to give a legally correct theory of the case to the jury, but also because the instruction given on the risk benefit test was not supported by the evidence. Further, the error was not rendered harmless by a lack of causation, as defendants argue, because the record supports a finding of causation.

II. Defendants Can Be Liable For Dangerous Parts Incorporated Into Their Products.

Defendants argue that because they did not manufacture the asbestos components of their pumps and valves, nor did they provide the replacements for such parts, they cannot be held liable for Cunningham's injuries. (See, e.g., *Vandermark v. Ford Motor Company*,

supra, 61 Cal.2d at p. 262; *Wiler v. Firestone Tire & Rubber Co.* (1979) 95 Cal.App.3d 621, 629; *Zambrana v. Standard Oil* (1972) 26 Cal.App.3d 209, 217.) Plaintiffs contend that defendants are liable for defective components made by others that are incorporated into their products. (*Daly v. General Motors Corp.* (1978) 20 Cal.3d 725, 746; *Tellez-Cordova v. Campbell-Hausfeld/Scott Fetzger Co.* (2004) 129 Cal.App.4th 577, 582-583.) Plaintiffs are correct.

Under the component part doctrine, the maker of a component part of a defective product is not liable if the component part itself is not defective. (*Tellez-Cordova, supra,* 129 Cal.App.4th at p. 581.) The doctrine's rationale is that multi-use component and raw material manufacturers should not have to ensure the safety of their products as incorporated into other company's finished products; it is the finished product manufacturer who "'knows exactly what they intend to do with the component or raw material and therefore are in a better position to guarantee that the component or raw material is suitable for their particular applications.'" (*Springmeyer v. Ford Motor Company* (1998) 60 Cal.App.4th 1541, 1554.)

The manufacturer of a completed product cannot escape liability by tracing the defect to a component part supplied by another. (*Vandermark v. Ford Motor Company, supra,* 61 Cal.2d at p. 261.) Here, the products were alleged to be defective because their overall design called for the inclusion of asbestos gaskets and packing. As set forth in *Springmeyer, supra,* 60 Cal.App.4th at p. 1550, defendants here knew exactly what they intended to do with the asbestos components of the products and were therefore in a better position to understand the risks.

III. THE SPECIAL VERDICT FORM INCORRECTLY COMBINED THE RISK/BENEFIT ANALYSIS WITH A FAILURE TO WARN THEORY.

Plaintiffs contend that the special jury verdict improperly required the jury to find a design defect under the risk/benefit analysis before it evaluated whether defendants breached any duty to warn. They contend the two theories of product liability (risk/benefit and failure to warn) are distinct, and that liability may be imposed solely on a failure to warn theory. (*Anderson, supra,* 53 Cal.3d 987.) Defendants contend that the verdict form

was proper because a risk/benefit analysis is inherent in claims under both a risk/benefit theory and a failure to warn theory. (*Cavers v. Cushman Motor Sales* (1979) 95 Cal.App.3d 338 (*Cavers*).)

A. Factual Background.

At trial, defendants argued that the trial court should give the jury a special verdict form that asked the jury to find defendants liable under the risk/benefit test before it considered whether the defendants breached their duty to warn of the dangers of asbestos. The special verdict asked whether there was "a defect in design of the defendant's equipment in that the risk outweighed the benefits of the design." If the jury answered the question affirmatively, they were then to consider whether "there [was] a defect in the defendant's equipment in that there was a failure to warn of the potential risks which were known or knowable in light of generally recognized and prevailing best medical and scientific knowledge at the time of manufacture and distribution."

Defendants argued that there was "no tort for failure to warn in strict liability," and therefore the jury had to find both a design defect and a failure to warn "in sequence," because they were "building blocks" of each other, and there could be no failure to warn claim without an underlying defect. Plaintiff argued that giving the instruction would permit the jury to skip over a viable claim that they should have the opportunity to evaluate. The trial court agreed with defendants, and the jury was given the special verdict form drafted by defendants.

B. Failure to Warn is A Distinct Theory of Strict Product Liability.

California recognizes three distinct theories of strict liability: design defect, manufacturing defect, and failure to warn. (*Anderson, supra*, 53 Cal.3d at pp. 994-995.) A product may be defective under the failure to warn theory even though it is manufactured or designed flawlessly. (*Canifax v. Hercules Powder Co.* (1965) 237 Cal.App.2d 44, 52-53.) "[A] product, although faultlessly made, may nevertheless be deemed 'defective' under the rule and subject the supplier thereto to strict liability if it is unreasonably dangerous to place the product in the hands of a user without a suitable warning and the

product is supplied and no warning is given." (*Id.* at p. 53; *Anderson, supra,* 53 Cal.3d at pp. 995-996.)

In *Cavers, supra,* 95 Cal.App.3d 338, the court examined the foundations of the failure to warn theory of strict liability and considered whether a product could be defective solely based upon a failure to warn of risks in using the product. The plaintiff had alleged that a golf cart, otherwise properly manufactured, was defective due to its propensity to tip over when turning, and the absence of a warning of this propensity rendered the cart defective. The plaintiff presented no evidence that the cart was defective in design or manufacture. (*Id.* at pp. 341-342.) *Cavers* noted that the concept of "defect" could not be precisely defined; in the case of a manufacturing defect, the product could be compared to other properly manufactured products, and in the case of design defect, the reasonableness of the design could be weighed against alternatives. However, in the case of a failure to warn, the jury must decide "whether a product flawlessly designed and produced may nevertheless possess such risks to the user without a suitable warning that it becomes 'defective' simply by the absence of a warning." (*Id.* at p. 347.)

For this reason, *Cavers* relied on the defect tests set forth in *Barker, supra,* 20 Cal.3d at p. 426, to assist in determining whether an otherwise properly designed and manufactured product was defective for failure to warn. The jury could consider the normal expectations of the consumer as to how the product would perform, degrees of simplicity or complication in the operation or use of the product, the nature and magnitude of the danger to which the user is exposed, the likelihood of injury and the feasibility and beneficial effect of including a warning. (*Cavers, supra,* 95 Cal.App.3d at pp. 347-348; *Anderson, supra,* 53 Cal.3d at p. 996.)

Defendants are therefore incorrect when they assert a failure to warn theory may only be advanced once an underlying design defect is established. A failure to warn theory may be advanced when a product is inherently dangerous when used correctly in spite of the fact there is no defect in design or manufacture. (*Anderson, supra,* 53 Cal.3d at pp. 995-996.) Further, although under *Cavers,* the failure to warn may involve a consideration of the two other basic tests for strict products liability (consumer

expectations or risk/benefit), neither of these tests is a prerequisite for finding that there can be liability under a failure to warn theory. Therefore, the special verdict form imposing the risk/benefit test as a precondition to the failure to warn analysis was erroneous. Because the verdict precluded the jury from considering a theory of liability, the error was prejudicial. (*Soule, supra,* 8 Cal.4th at pp. 580-581.)

C. Plaintiffs Are Entitled To Assert A Duty To Warn Theory.

Defendants contend they had no duty to warn of the asbestos components of their products, and even if they did, such a warning would have been futile because there is no evidence Cunningham would have heeded it. They further contend that there was no evidence they knew or should have known their products were dangerous, and that the Navy's failure to warn Cunningham was a superseding cause.

The duty to warn requires that the manufacturer knows, or should have known, of the danger of the product at the time it is sold or distributed. (*Brown v. Superior Court* (1988) 44 Cal.3d 1049, 1065-1066; *Anderson, supra,* 53 Cal.3d at p. 1000.) Strict liability failure to warn requires the plaintiff to prove that the defendant "did not adequately warn of a particular risk that was known or knowable in light of the generally recognized and prevailing best scientific and medical knowledge available at the time of the manufacture and distribution. . . . [T]he reasonableness of the defendant's failure to warn is immaterial." (*Anderson, supra,* 53 Cal.3d at pp. 1002-1003.) Otherwise, the manufacturer would become a virtual insurer of the product. (*Brown v. Superior Court, supra,* 44 Cal.3d at p. 1066.) "If every product that has no warning were defective per se and for that reason subject to strict liability, the mere fact of injury by an unlabelled product would permit recovery. That is not, and has never been, the purpose and goal of the failure-to-warn theory of strict liability." (*Anderson, supra,* at p. 1002.)

We disagree that defendants had no duty to warn. The evidence at trial established that at some point, defendants acquired knowledge of the dangers of asbestos; at all times, defendants knew their products used asbestos components; and that defendants' products did not contain warnings. Speculation as to whether Cunningham would have heeded the warnings does not absolve them of their duty, nor does the fact that the asbestos was only a

component part of their product. Plaintiff was entitled to an instruction on a pure duty to warn theory; defendants did not establish as a matter of law they had no duty to warn.

IV. DEFENDANTS HAVE NOT ESTABLISHED THE "SOPHISTICATED USER" DEFENSE.

Defendants contend that they had no duty to warn of the dangerousness of their products under *Johnson v. American Standard, Inc.* (2008) 43 Cal.4th 56 (*Johnson*), which established the vitality of the sophisticated user defense to products liability claims in California, and they are entitled to judgment as a matter of law because Cunningham and/or the Navy were sophisticated users, or the Navy was a sophisticated intermediary.[12] Defendants have not established this defense as a matter of law.

The *Johnson* court relied on *Fierro v. International Harvester Co.* (1982) 127 Cal.App.3d 862, in which the plaintiff's decedent was killed in a truck manufactured by defendant International Harvestor. Defendant manufactured skeleton trucks that could be modified by the purchaser, and plaintiff's decedent drove a truck modified by his employer, and died when the truck caught fire. The employer had modified the truck in such a manner as to create a fire hazard; plaintiff's decedent alleged that International Harvester had a duty to warn of the dangers in making such a modification. (*Fierro, supra,* 127 Cal.App.3d at pp. 865-866.) Because the employer was sophisticated, "[t]here was no evidence that any feature of the skeleton unit was unique or contained any component or capability which was known to International and which was not known to or readily observable by [the employer]." The lack of warning to the employer therefore "did not substantially or unreasonably increase any danger that may have existed in using the International unit." (*Id.* at p. 866.)

Johnson noted that federal courts had adopted the rationale of *Fierro,* in particular the Northern District of California's decision in *In re Related Asbestos Cases* (N.D. Cal.

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[12] Although the opinion in *Johnson* had not been issued at the time of trial, Leslie Controls filed a trial brief requesting that the trial court instruct the jury on the sophisticated user defense. The jury was not instructed on the theory.

1982) 543 F.Supp. 1142 (*Related Asbestos Cases*). In *Related Asbestos Cases*, the District Court applied the sophisticated user defense to plaintiff shipyard workers and insulators who had served in the Navy for varying periods of time and who were allegedly exposed to asbestos in defendants' products. (*Related Asbestos Cases, supra*, 543 F.Supp. at p. 1150.) The defendant manufacturers in *Related Asbestos Cases* asserted as an affirmative defense that the Navy, as a sophisticated user, was negligent in failing to provide a safe work environment and that this constituted a supervening cause sufficient to relieve them of liability. (*Id.* at p. 1150.) *Related Asbestos Cases* believed that under California law, the defense was available in a strict liability case and could be used to relieve the defendants of liability, although the defense could be undercut by demonstrating that the Navy's alleged negligence was foreseeable. (*Related Asbestos Cases, supra,* 543 F.Supp. at p. 1150, citing *Balido v. Improved Machinery, Inc.* (1972) 29 Cal.App.3d 633, 644-647.) Although at the time "[t]he California courts ha[d] not yet clearly embraced" the doctrine, *Related Asbestos Cases* noted that it believed our Supreme Court would adopt the defense because it was similar in principle to the defense of supervening cause. (*Related Asbestos Cases, supra,* at pp. 1150-1151.)

Johnson relied on *Related Asbestos Cases,* finding its reasoning persuasive. (*Johnson, supra,* 43 Cal.4th at p. 69.) As set forth in *Johnson,* under the sophisticated user defense, a manufacturer of a product has no duty to warn of the product's dangerous propensities if the plaintiff has or should have knowledge of the product's inherent hazards. (*Johnson, supra,* 43 Cal.4th at p. 71.) The rationale underlying the defense is that the failure to provide warnings about risks already known to a sophisticated purchaser is not a proximate cause of the harm. "This is because the user's knowledge of the dangers is the equivalent of prior notice." (*Id.* at p. 65.) The test applies to both negligence and strict liability failure to warn cases. (*Id.* at p. 71.)

The relevant time period for determining user sophistication is when the plaintiff was injured. (*Johnson, supra,* 43 Cal.4th at p. 73.) "Therefore, the sophisticated user's knowledge of the risk is measured from the time of the plaintiff's injury, rather than from the date the product was manufactured. The timeline focuses on the general population of

sophisticated users and conforms to the defense's purpose to eliminate any duty to warn when the expected user population is generally aware of the risk at issue." (*Id.* at p. 74.)

However, *Johnson* did not decide whether the doctrine was applicable where, as here, it was the employer, and not the plaintiff, who was asserted to have the knowledge. In such a case, under the federal rule, the plaintiff may undercut the defense by showing the sophisticated user's misuse of the product was foreseeable. *Johnson* declined to address the issue. (*Johnson, supra,* 43 Cal.4th at p. 69, fn.5; see *Related Asbestos Cases, supra,* 543 F.Supp. at p. 1151.)

Further, under the sophisticated intermediary theory, a manufacturer can be absolved of a duty to warn if there has been an adequate warning to an intermediary. (See *Garza v. Asbestos Corp., Ltd.* (2008) 161 Cal.App.4th 651, 662 [where plaintiff was exposed to asbestos while in Navy and at other employment, the sophisticated intermediary doctrine may be a defense to a products liability action, although the defense was not applicable based on the facts before the court].)

Here, there is evidence the Navy knew of the dangers of asbestos in the 1940s, but did not institute safety procedures for the handling of asbestos until the 1970s. However, there is no evidence concerning the Navy's level of sophistication, or when its knowledge reached a minimum threshold level concerning the dangers of asbestos such that action, whether by a warning or other conduct, should have been taken. Thus, the trial court record was not sufficiently developed for us to apply the sophisticated user doctrine on the facts before us. Finally, *Garza* left open the issue of whether the Navy could be a sophisticated intermediary such that the manufacturer need not warn the end user if the manufacturer supplied a proper warning to the Navy. Although this defense was not factually or legally developed at trial, the court may consider its applicability on remand.

DISPOSITION

The judgment of the superior court is reversed. Plaintiffs are to recover their costs on appeal.

NOT TO BE PUBLISHED IN THE OFFICIAL REPORTS

ZELON, J.

We concur:

WOODS, Acting P. J.

JACKSON, J.